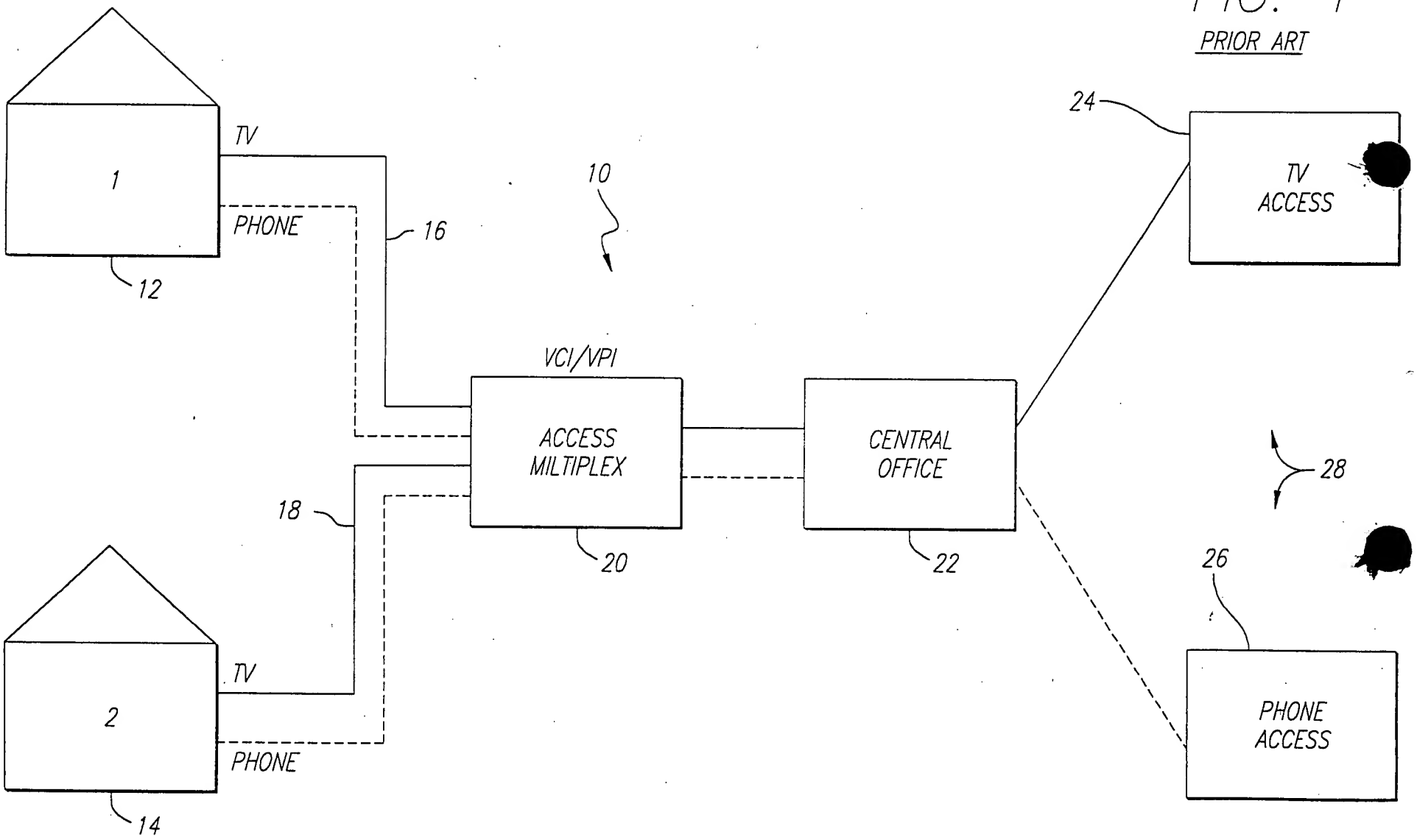
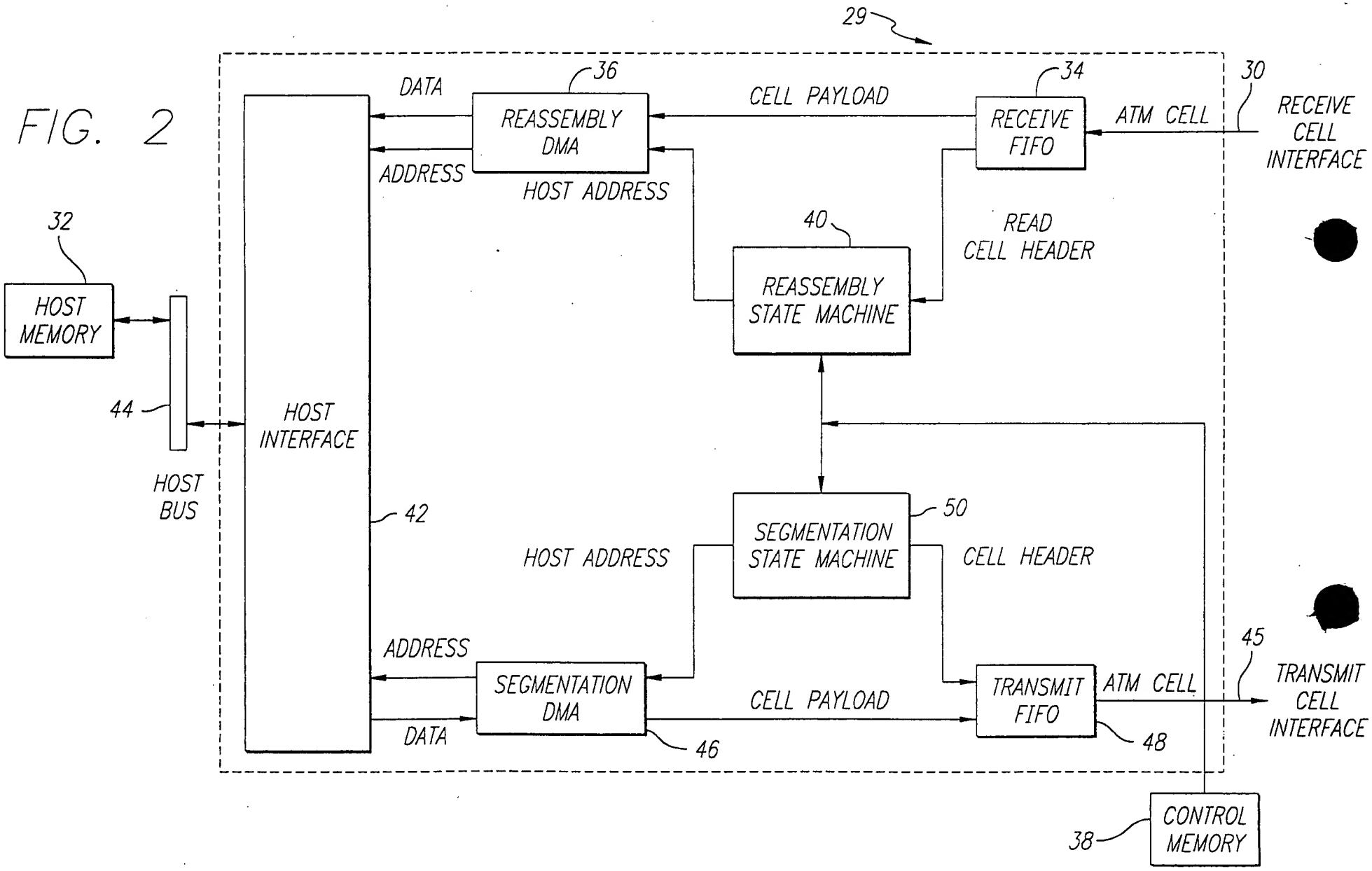
66h0FF" 058E£h60

FIG. 1
PRIOR ART



66hOTT" 058E3h60

FIG. 2



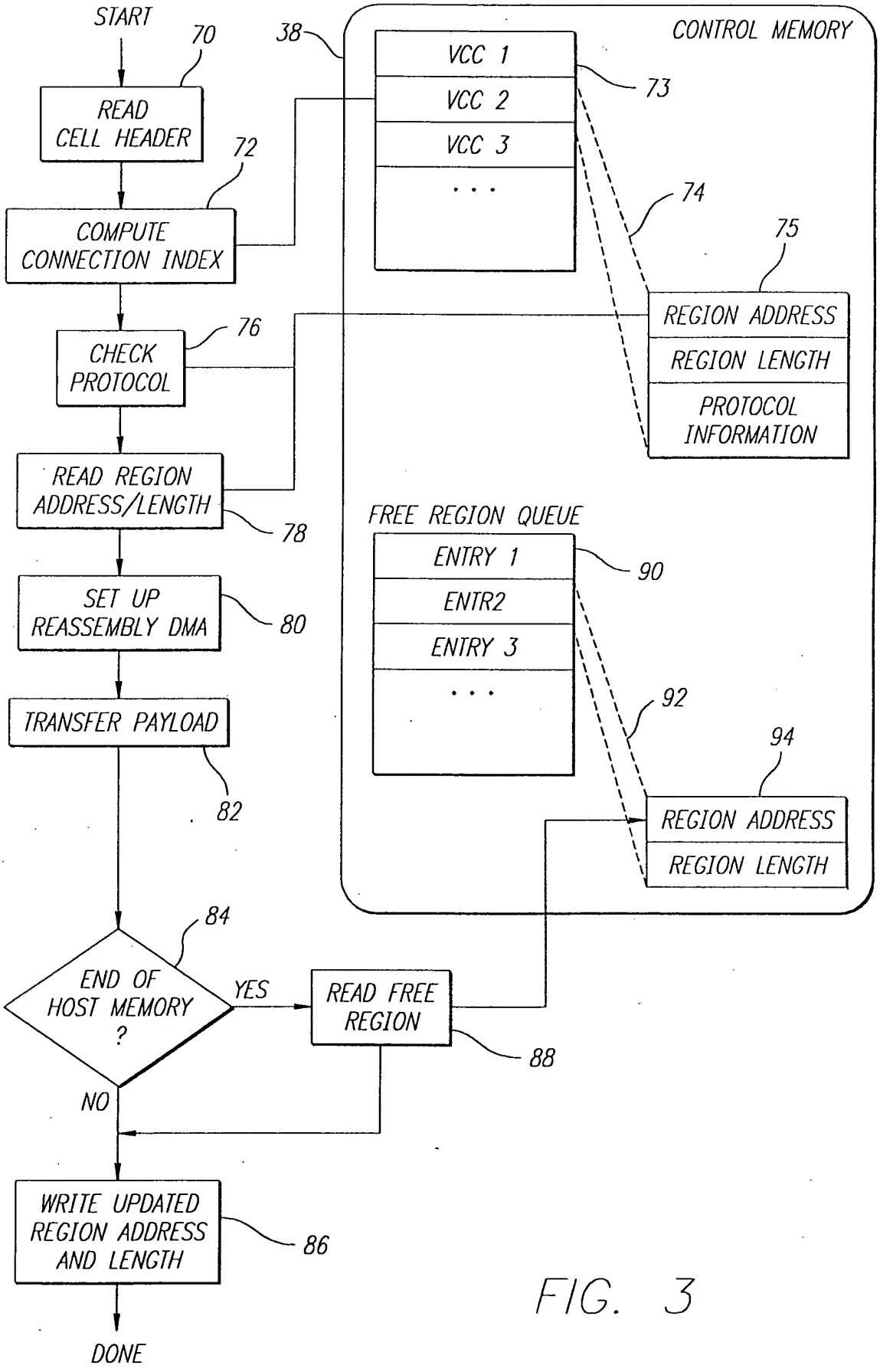

START
70
READ CELL HEADER
72
COMPUTE CONNECTION INDEX
76
CHECK PROTOCOL
READ REGION ADDRESS/LENGTH
78
SET UP REASSEMBLY DMA
80
TRANSFER PAYLOAD
82
84
END OF HOST MEMORY ?
YES
NO
READ FREE REGION
88
WRITE UPDATED REGION ADDRESS AND LENGTH
86
DONE
38
CONTROL MEMORY
VCC 1
VCC 2
VCC 3
. . .
73
74
75
REGION ADDRESS
REGION LENGTH
PROTOCOL INFORMATION
FREE REGION QUEUE
ENTRY 1
ENTR2
ENTRY 3
. . .
90
92
94
REGION ADDRESS
REGION LENGTH

FIG. 3

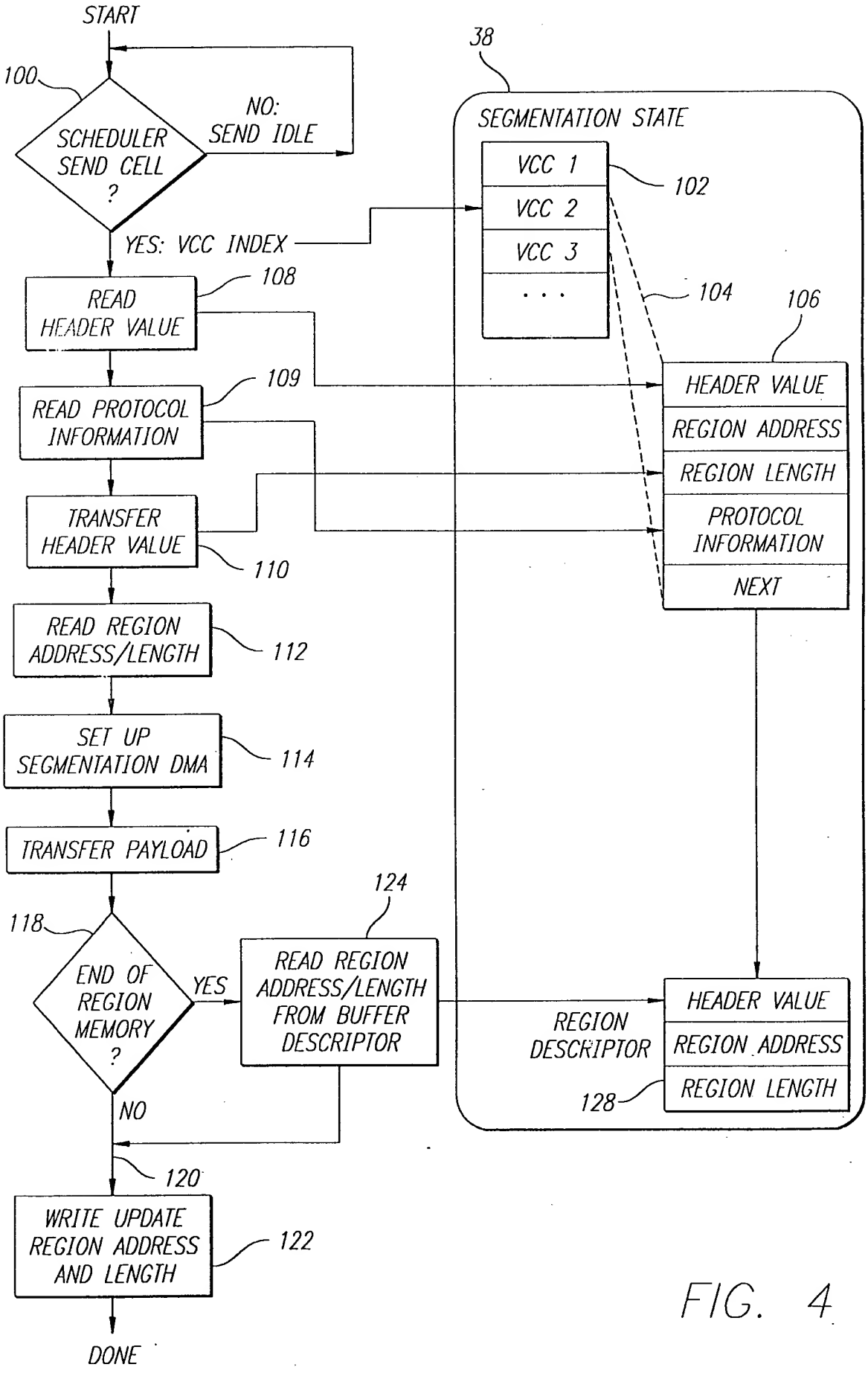

START
100
SCHEDULER SEND CELL ?
NO: SEND IDLE
YES: VCC INDEX
38
SEGMENTATION STATE
VCC 1
VCC 2
VCC 3
. . .
102
104
106
108
READ HEADER VALUE
109
READ PROTOCOL INFORMATION
TRANSFER HEADER VALUE
110
HEADER VALUE
REGION ADDRESS
REGION LENGTH
PROTOCOL INFORMATION
NEXT
READ REGION ADDRESS/LENGTH
112
SET UP SEGMENTATION DMA
114
TRANSFER PAYLOAD
116
124
118
END OF REGION MEMORY ?
YES
READ REGION ADDRESS/LENGTH FROM BUFFER DESCRIPTOR
REGION DESCRIPTOR
HEADER VALUE
REGION ADDRESS
REGION LENGTH
128
NO
120
WRITE UPDATE REGION ADDRESS AND LENGTH
122
DONE

FIG. 4

66hOFF" 058E Eh60

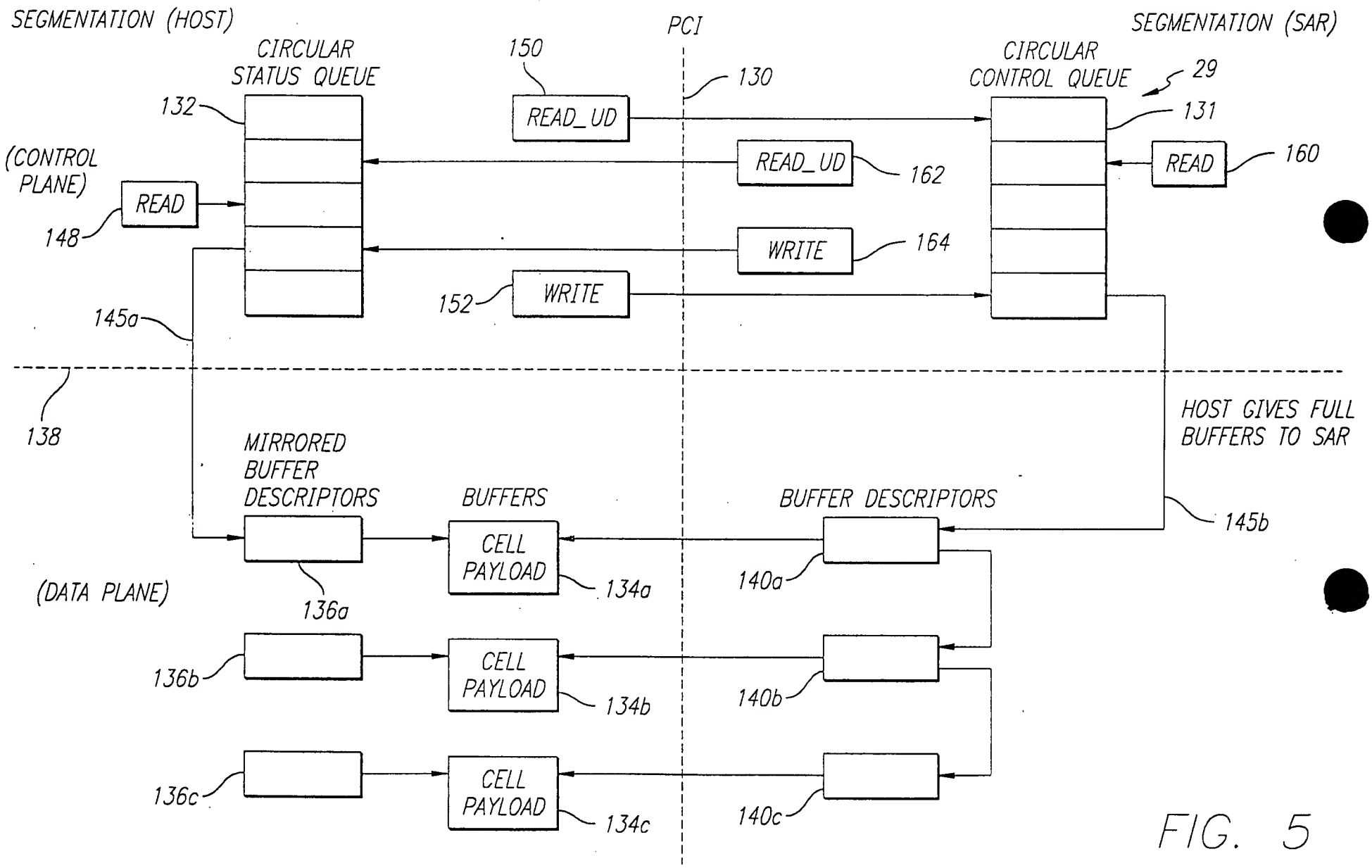


FIG. 5

66hOTT' 0S8E£h60

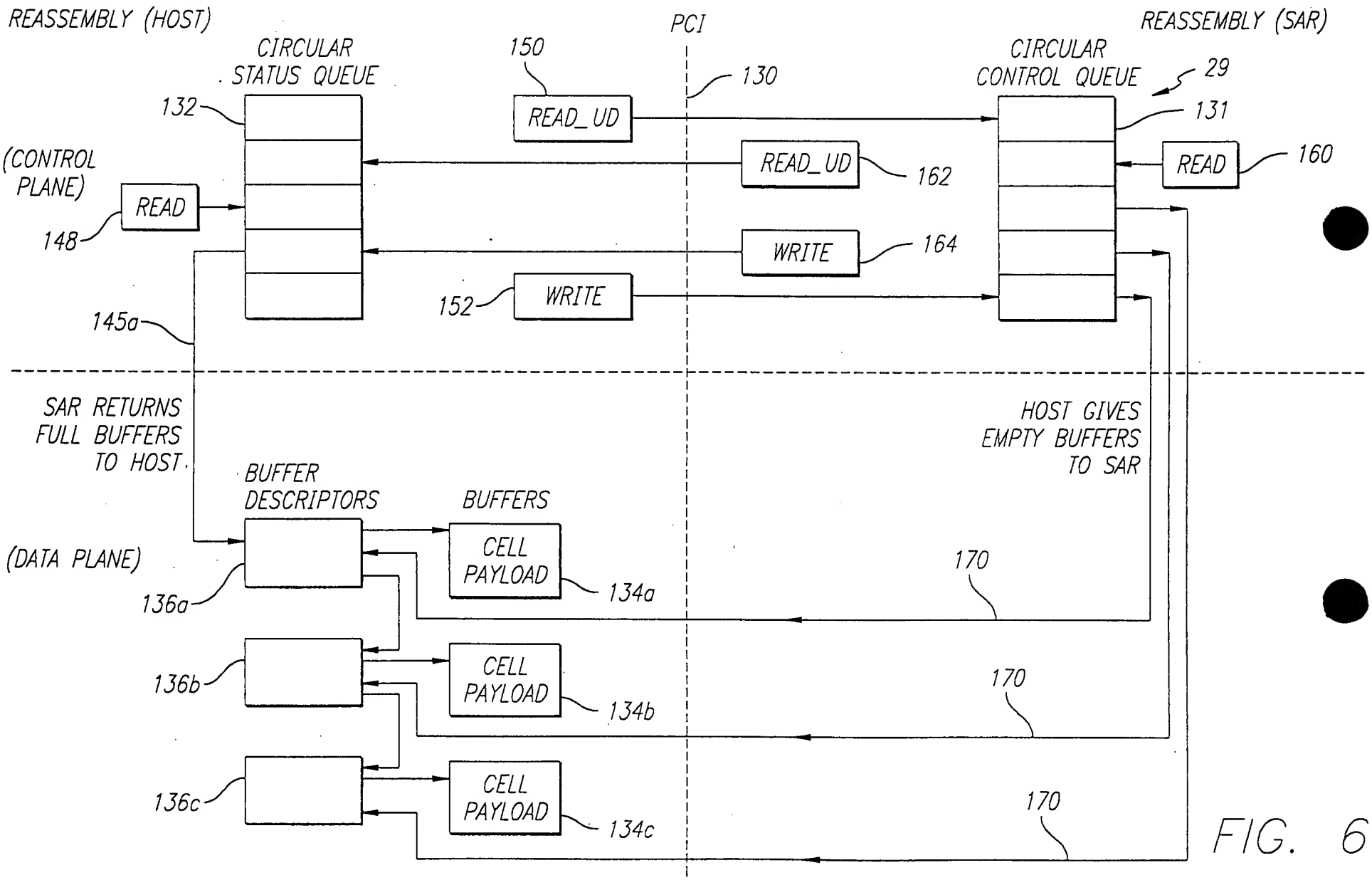


FIG. 6

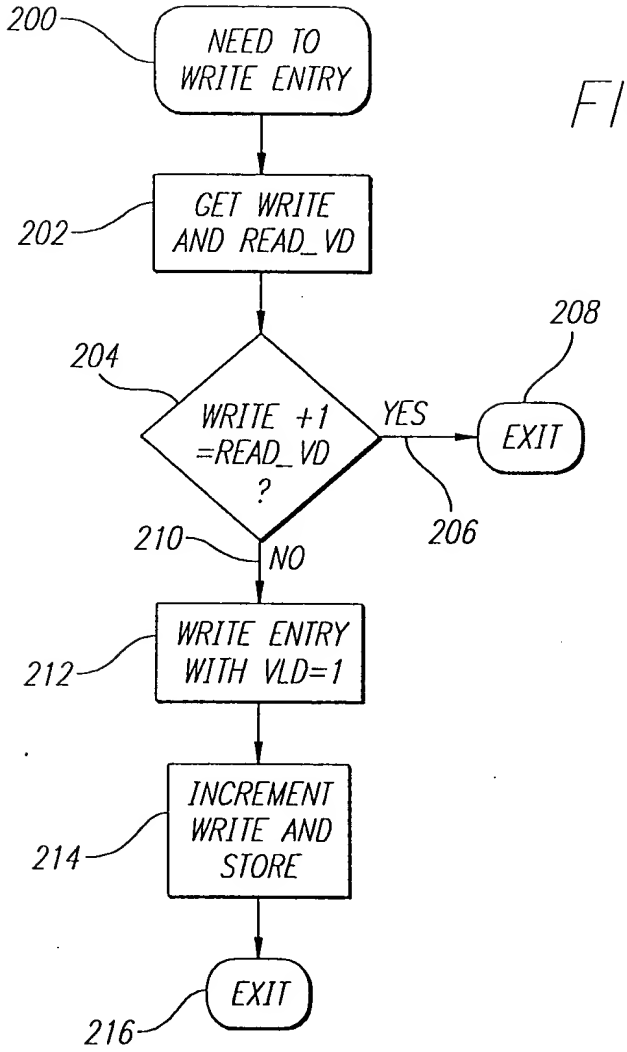
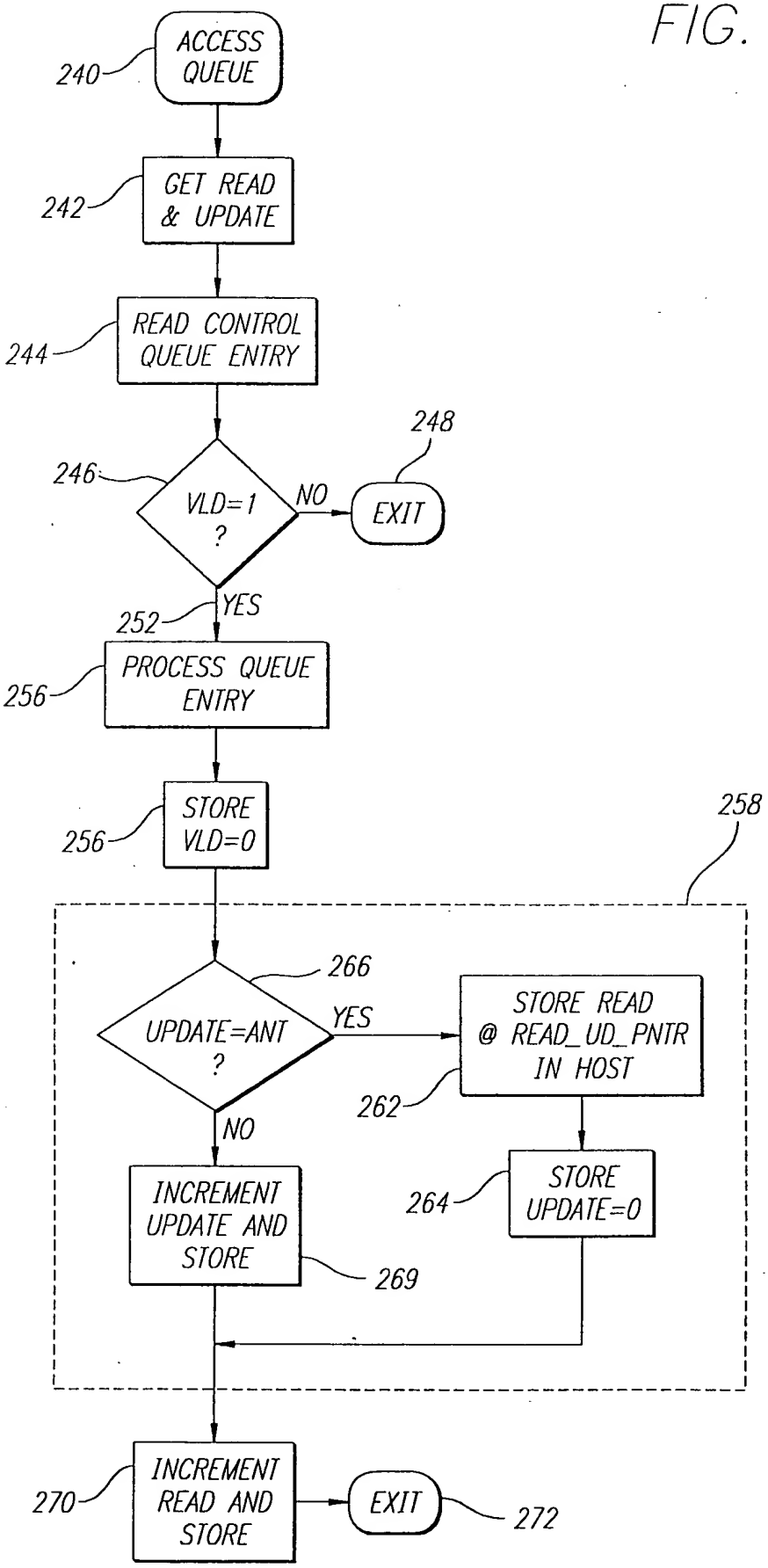

200
NEED TO WRITE ENTRY
202
GET WRITE AND READ_VD
204
WRITE +1 =READ_VD ?
YES
208
EXIT
206
210
NO
212
WRITE ENTRY WITH VLD=1
214
INCREMENT WRITE AND STORE
216
EXIT

FIG. 7

FIG. 8


ACCESS QUEUE
240
GET READ & UPDATE
242
READ CONTROL QUEUE ENTRY
244
VLD=1 ?
246
NO
EXIT
248
YES
252
PROCESS QUEUE ENTRY
256
STORE VLD=0
256
258
UPDATE=ANT ?
266
YES
STORE READ @ READ_UD_PNTR IN HOST
262
NO
INCREMENT UPDATE AND STORE
269
STORE UPDATE=0
264
INCREMENT READ AND STORE
270
EXIT
272

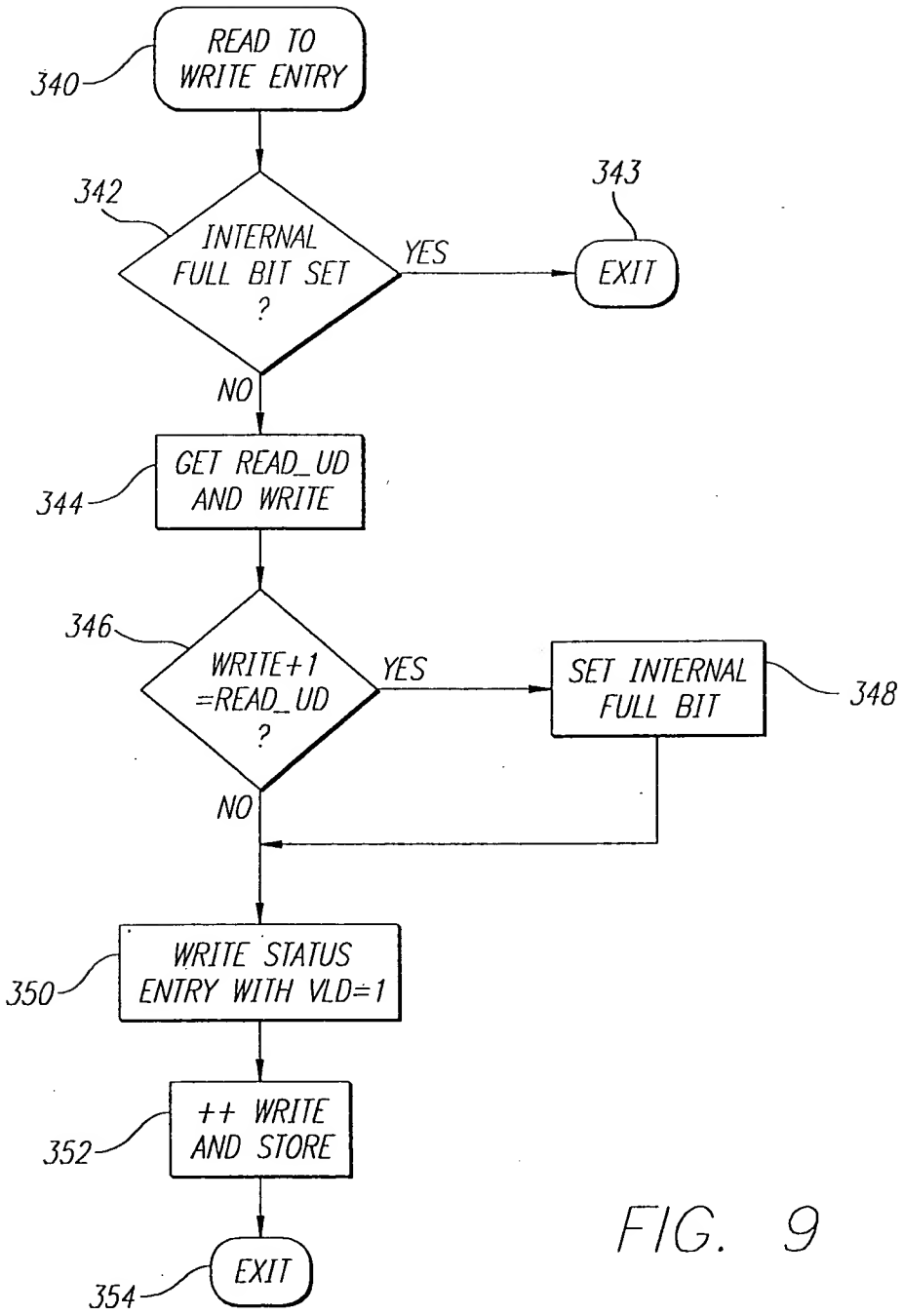

READ TO WRITE ENTRY
340
342
INTERNAL FULL BIT SET ?
YES
343
EXIT
NO
GET READ_UD AND WRITE
344
346
WRITE+1 =READ_UD ?
YES
SET INTERNAL FULL BIT
348
NO
WRITE STATUS ENTRY WITH VLD=1
350
++ WRITE AND STORE
352
EXIT
354

FIG. 9

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FIG. 10

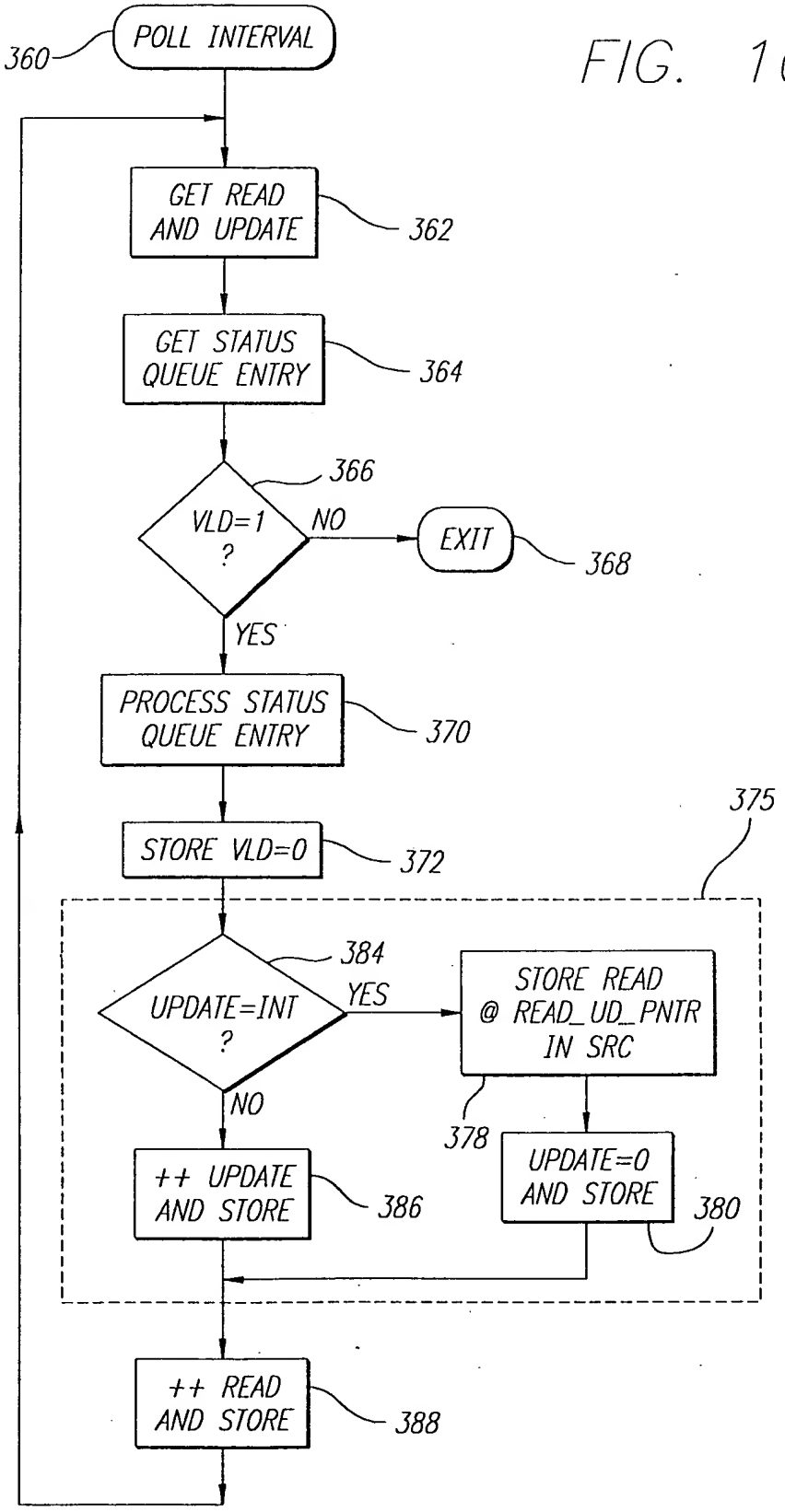

FIG. 11

WRITE-ONLY CONTROL QUEUE VARIABLES

VARIABLE	DEFINITION	LOCATION
WRITE	CURRENT HOST POSITION IN CONTROL QUEUE	HOST VARIABLE
READ_UD	LAST KNOWN SAR POSITION IN CONTROL QUEUE AS SEEN BY HOST	HOST VARIABLE
READ	CURRENT SAR POSITION IN CONTROL QUEUE	SAR BASE TABLE
INTERVAL	NUMBER OF QUEUE ENTRIES PROCESSED BY SAR BEFORE WRITING READ_UD	SAR REGISTER
UPDATE	NUMBER OF QUEUE ENTRIES SINCE LAST WRITE OF READ_UD FROM HOST	SAR BASE TABLE
READ_UD_PNTR	SAR POINTER TO READ_UD	SAR BASE TABLE

FIG. 12

WRITE-ONLY STATUS QUEUE VARIABLES

VARIABLE	DEFINITION	LOCATION
WRITE	CURRENT SAR POSITION IN STATUS QUEUE	SAR BASE TABLE
READ_UD	HOST KNOWN HOST POSITION IN STATUS QUEUE AS SEEN BY SAR	SAR BASE TABLE
READ	CURRENT HOST POSITION IN STATUS QUEUE	HOST VARIABLE
INTERVAL	NUMBER OF QUEUE ENTRIES PROCESSED BY HOST BEFORE WRITING READ_UD	HOST VARIABLE
UPDATE	NUMBER OF QUEUE ENTRIES SINCE LAST WRITE OF READ_UD	HOST VARIABLE
READ_UD_PNTR	HOST POINTER TO READ_UD	HOST VARIABLE